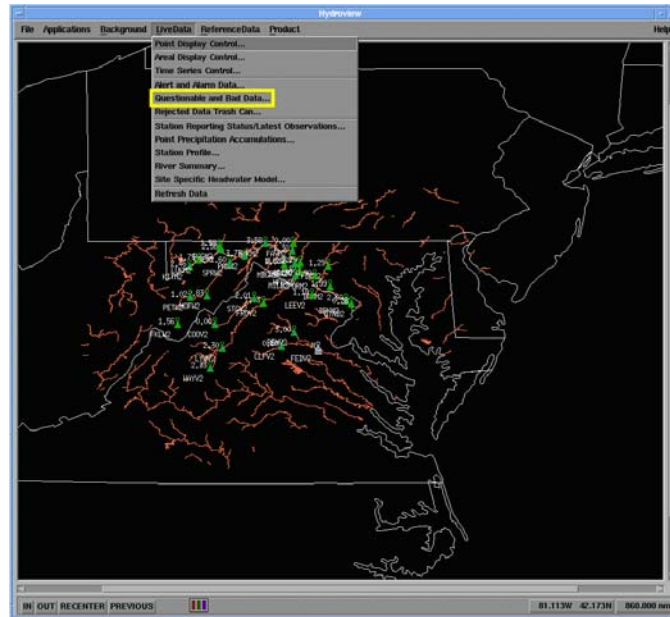


## Quality Control and Alert/Alarm Limits (version 5.1.2)

### Questionable and Bad Data

The Questionable and Bad Data window can be used to display data that have been marked as questionable or bad<sup>1</sup> by the quality control processes. The user can access this display from the Root Window in HydroView by clicking on the LiveData pull down menu. Click on **Questionable and Bad Data**. No information or data can be typed or edited in this window except entering the station location, setting the number of days back, and deleting highlighted rows.



Questionable and Bad Data

Filter By: ☐ Location ☐ Height (Stage) Last 1 days Sort By: ☐ Location ☒ Time

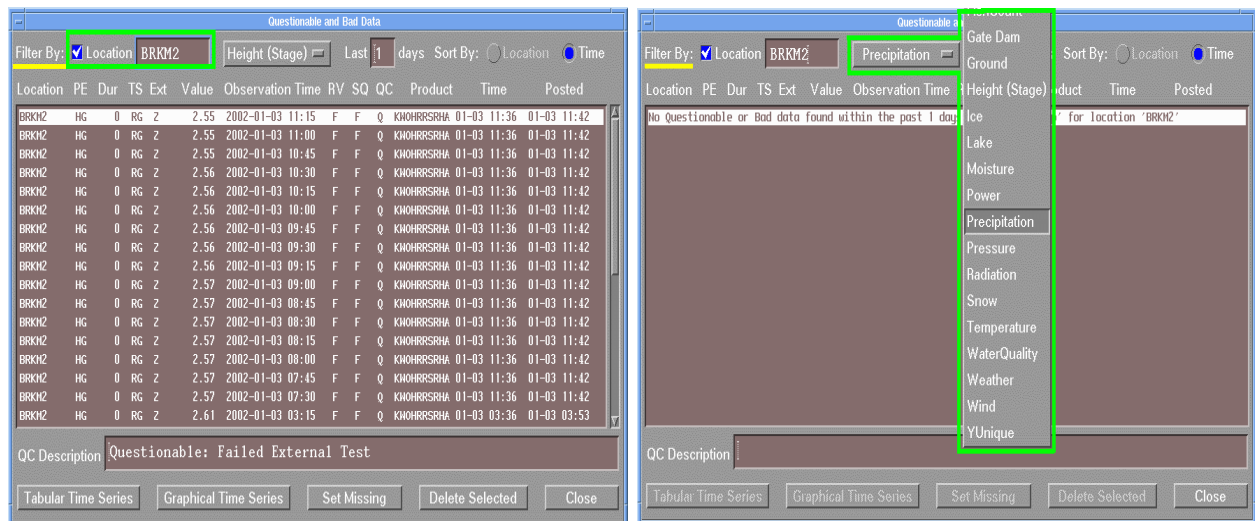
Location	PE	Dur	TS	Ext	Value	Observation Time	RV	SQ	QC	Product	Time	Posted
BRCH2	ING	0	RG	Z	2.55	2002-01-03 11:15	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.55	2002-01-03 11:00	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.55	2002-01-03 10:45	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.56	2002-01-03 10:30	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.56	2002-01-03 10:15	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.56	2002-01-03 10:00	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.56	2002-01-03 09:45	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.56	2002-01-03 09:30	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.56	2002-01-03 09:15	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.57	2002-01-03 09:00	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.57	2002-01-03 08:45	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.57	2002-01-03 08:30	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.57	2002-01-03 08:15	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.57	2002-01-03 08:00	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.57	2002-01-03 07:45	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.57	2002-01-03 07:30	F	F	Q	KM0NRBSGRMA	01-03 11:36	01-03 11:42
BRCH2	ING	0	RG	Z	2.61	2002-01-03 03:15	F	F	Q	KM0NRBSGRMA	01-03 03:36	01-03 03:53

QC Description: Questionable: Failed External Test

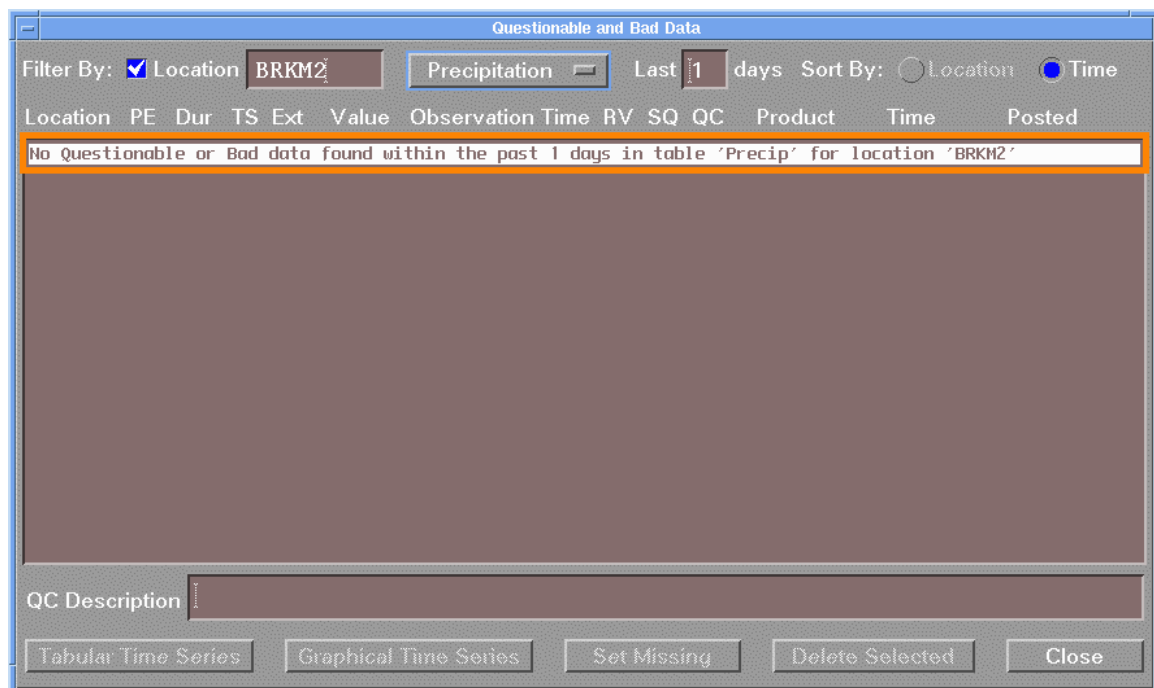
Tabular Time Series Graphical Time Series Set Missing Delete Selected Close

<sup>1</sup> Data flagged as bad may be viewed in the Rejected Data window. A shef token defined in the /awips/hydroapps/.Apps\_defaults or /awips/hydroapps/.Apps\_default\_site file is used to determine if data flagged as bad is posted to the rejected data table or the actual physical element table in the database.

The **Filter By:** option is used to filter data anomalies list by: 1) **location** (type the location id and press enter) and/or 2) by a certain **observation type** (click on an observation type in the pull down list).



In the example below, precipitation was selected. There was no questionable or bad data found for precipitation. The following message will then read... **"No questionable or bad data found within the past 1 days in the table 'Precipitation'"** The message talks about ...the past 1 days in the table... which will be talked about next. The user may select a certain location, for a certain observation type, too, if so desired. The default is to display all locations.



Next to **Filter By:** is an option to select number of days back the computer should look in the list to display data. **Last \_\_ days** is the prompt for the user to type in a number to search, like a day or 30 days of questionable or bad data. After entering the number of days back to search, the user **must hit the enter key** for the search to take place. Last the **Sort By:** option allows the user to display the data in a specified order (location or time).

Questionable and Bad Data

Filter By: ☒ Location ☐ Height (Stage)  Last  days Sort By: ☐ Location ☒ Time

Location	PE	Dur	TS	Ext	Value	Observation Time	RV	SQ	QC	Product	Time	Posted
BRKM2	HG	0	RG	Z	2.55	2002-01-03 11:15	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.55	2002-01-03 11:00	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.55	2002-01-03 10:45	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.56	2002-01-03 10:30	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.56	2002-01-03 10:15	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.56	2002-01-03 10:00	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.56	2002-01-03 09:45	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.56	2002-01-03 09:30	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.56	2002-01-03 09:15	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.57	2002-01-03 09:00	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.57	2002-01-03 08:45	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.57	2002-01-03 08:30	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.57	2002-01-03 08:15	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.57	2002-01-03 08:00	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.57	2002-01-03 07:45	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.57	2002-01-03 07:30	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42
BRKM2	HG	0	RG	Z	2.61	2002-01-03 03:15	F	F	Q	KHOHRRSRHA	01-03 03:36	01-03 03:53

QC Description: Questionable: Failed External Test

Tabular Time Series Graphical Time Series Set Missing Delete Selected Close

The header of the table displays the following information:

**Location** - location id

**PE** - physical element

**Dur** - duration code

**TS** - type source

**Ext** - extremum

**Value** - the observed value

**Observation Time** - date and time of the observed value

**RV** - revision or not to the data: T = revised, F = no revision

**SQ** - SHEF qualifier

**QC** - quality control code: Q = questionable, B = bad, G = good

**Product** - product id

**Time** - date and time of the product

**Posted** - date and time of the data posted to the database

Within the table the user may click on an item to highlight it and display the quality control data anomaly description. The description can be read in the **QC Description** section below the table. The description gives the user a general idea why the data maybe questionable or bad. At the bottom of the screen the user may view the highlighted item by the **Tabular Time Series** or **Graphical Time Series**. The option **Set Missing** allows the user to change the data from its numerical value to “missing”. He/She may delete highlighted data rows by clicking on **Delete Selected**. The **Close** option is to exit the window.

Questionable and Bad Data														
Filter By:		<input checked="" type="checkbox"/> Location		BRKM2		Height (Stage)		Last		1		days		Sort By: <input type="radio"/> Location <input checked="" type="radio"/> Time
Location	PE	Dur	TS	Ext	Value	Observation Time	RV	SQ	QC	Product	Time	Posted		
BRKM2	HG	0	RG	Z	2.55	2002-01-03 11:15	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.55	2002-01-03 11:00	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.55	2002-01-03 10:45	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.56	2002-01-03 10:30	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.56	2002-01-03 10:15	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.56	2002-01-03 10:00	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.56	2002-01-03 09:45	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.56	2002-01-03 09:30	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.56	2002-01-03 09:15	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.57	2002-01-03 09:00	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.57	2002-01-03 08:45	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.57	2002-01-03 08:30	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.57	2002-01-03 08:15	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.57	2002-01-03 08:00	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.57	2002-01-03 07:45	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.57	2002-01-03 07:30	F	F	Q	KHOHRRSRHA	01-03 11:36	01-03 11:42		
BRKM2	HG	0	RG	Z	2.61	2002-01-03 03:15	F	F	Q	KHOHRRSRHA	01-03 03:36	01-03 03:53		
QC Description		Questionable: Failed External Test												
Tabular Time Series		Graphical Time Series		Set Missing		Delete Selected		Close						